

OPERATOR
WELL/LEASE
COUNTY

MEWBOURNE OIL COMPANY
True Gritt 8 B3BO Fed Com 1H
EDDY

046-0096

STATE OF NEW MEXICO
DEVIATION REPORT

30-015-42333

370	1.35
665	0.00
2,031	2.50
2,445	2.80
2,922	1.46
2,604	1.95
3,336	2.11
4,130	0.74
4,512	0.81
4,926	1.49
5,338	0.15
5,752	0.83
6,167	0.52
6,549	0.09

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 28 2014

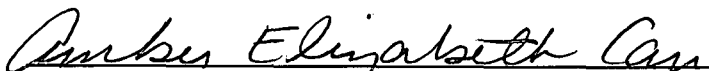
RECEIVED

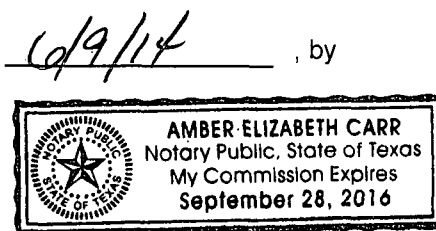
BY: 

STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Daisy Carrillo on behalf of Patterson-UTI Drilling Company LLC.

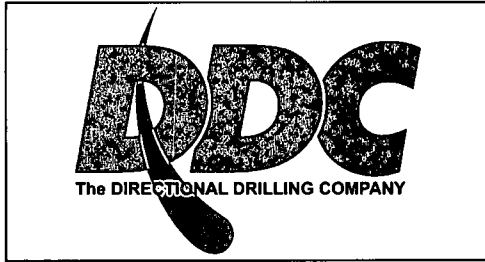

Notary Public for Midland County, Texas
My Commission Expires:



Company Name: Mewbourne Oil Co
True Grit 8 B3BO Fed Com #1H
Eddy County, New Mexico
Rig: Patterson #46
Created By: Kris Ray
Date: 05/28/2014

True Grit 8 B3BO Fed Com #1H
Eddy County, New Mexico
Quote 140485 & WT-140444
Design #2 - Tied to Gyro

Mewbourne Oil Company



Azimuths to Grid North

Magnetic North: 7.71°

Magnetic Field

Strength: 48370.3snT

Dip Angle: 60.15°

Date: 2/7/2014

Model: IGRF2010

PROJECT DETAILS: Eddy County, New Mexico

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

WELL DETAILS: True Grit 8 B3BO Fed Com #1H

+N/-S	+E/-W	Ground Level:	3594.0	Latitude	Longitude
0.0	0.0	Northing	513712.70	474727.00	32° 24' 44.221 N 104° 24' 54.825 W

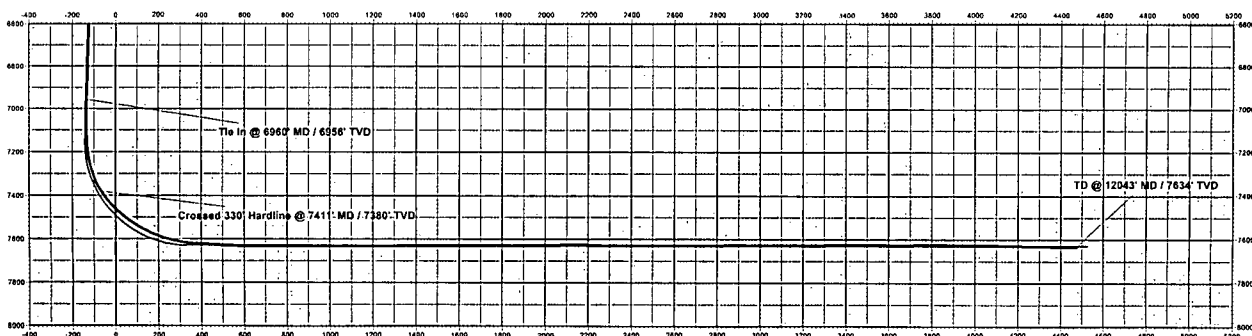
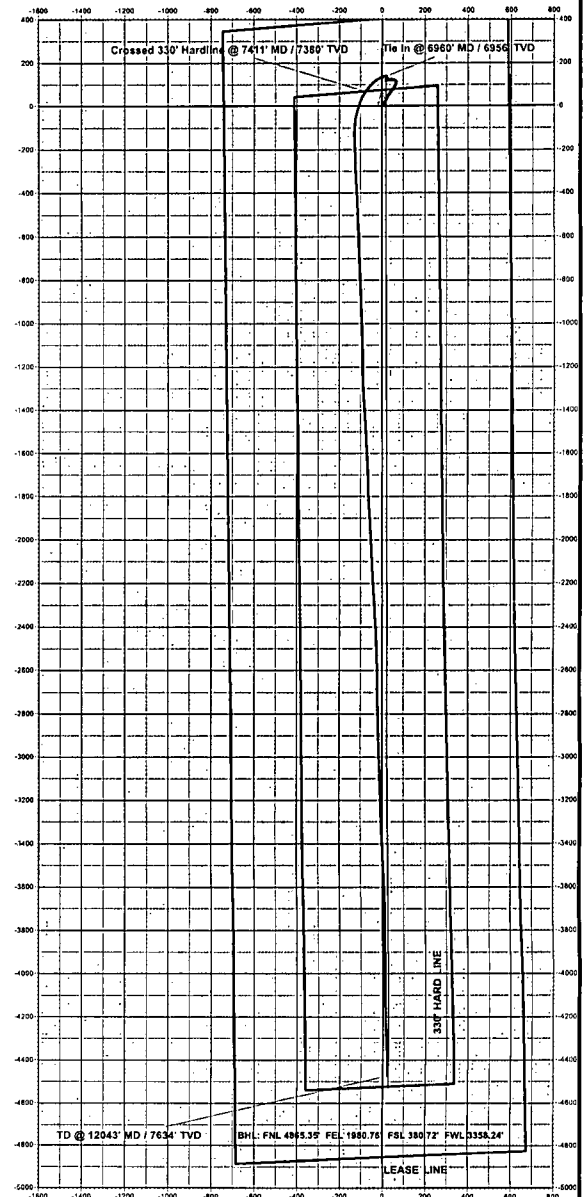
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL True Grit 8 B3BO Fed Com #1H D#2	7529.0	-4526.1	26.2	509186.61	474753.19	32° 23' 59.430 N 104° 24' 54.479 W	

- plan hits target center

ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	V Sect	Departure	Annotation
6960.0	2.07	353.20	6955.5	135.9	21.3	-135.8	215.2	Tie in @ 6960' MD / 6956' TVD
7411.4	37.63	214.19	7379.7	66.3	-76.4	-66.7	341.9	Crossed 330' Hardline @ 7411' MD / 7380' TVD
12043.0	90.10	177.50	7634.3	-4475.4	24.3	4475.5	4897.0	TD @ 12043' MD / 7634' TVD



Vertical Section at 179.67° (200 uat/in)

Mewbourne Oil Co

Eddy County, New Mexico

Sec 8-22S-25E

True Grit 8 B3BO Fed Com #1H

Wellbore #1

Design: Wellbore #1

DDC Survey Report

28 May, 2014



DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well True Grit 8 B3BO Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3614.0usft (Patterson #46)
Site:	Sec 8-22S-25E	MD Reference:	WELL @ 3614.0usft (Patterson #46)
Well:	True Grit 8 B3BO Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Project	Eddy County, New Mexico		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Sec 8-22S-25E		
Site Position:		Northing:	513,712.70 usft
From:	Map	Easting:	474,727.00 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 24' 44.221 N
		Longitude:	104° 24' 54.825 W
		Grid Convergence:	-0.04 °

Well	True Grit 8 B3BO Fed Com #1H		
Well Position	+N/-S	0.0 usft	Northing: 513,712.70 usft
	+E/-W	0.0 usft	Easting: 474,727.00 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	32° 24' 44.221 N
		Longitude:	104° 24' 54.825 W
		Ground Level:	3,594.0 usft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	2/7/2014	7.66	60.15	48,370

Design	Wellbore #1			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.67

Survey Program	Date 5/28/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	6,960.0	Gyro Survey (Wellbore #1)	Good_gyro	Good Gyro
7,065.0	12,043.0	MWD (Wellbore #1)	MWD default	MWD - Standard

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.58	64.89	100.0	0.2	0.5	-0.2	0.58	0.58	0.00
200.0	0.81	9.26	200.0	1.1	1.0	-1.1	0.68	0.23	-55.63
300.0	0.86	359.62	300.0	2.6	1.1	-2.6	0.15	0.05	-9.64
400.0	0.87	0.50	400.0	4.1	1.1	-4.1	0.02	0.01	0.88
500.0	0.79	38.02	500.0	5.4	1.6	-5.4	0.54	-0.08	37.52
600.0	1.29	62.31	599.9	6.5	3.0	-6.4	0.66	0.50	24.29
700.0	2.02	56.64	699.9	7.9	5.5	-7.9	0.75	0.73	-5.67
800.0	2.46	41.04	799.8	10.5	8.3	-10.5	0.75	0.44	-15.60
900.0	2.57	41.76	899.7	13.8	11.2	-13.8	0.11	0.11	0.72

DDC Survey Report



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Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3614.0usft (Patterson #46)
Site:	Sec 8-22S-25E	MD Reference:	WELL @ 3614.0usft (Patterson #46)
Well:	True Grit 8 B3BO Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.0	3.00	38.11	999.6	17.6	14.4	-17.5	0.46	0.43	-3.65
1,100.0	4.02	31.47	1,099.4	22.6	17.8	-22.5	1.10	1.02	-6.64
1,200.0	4.64	19.60	1,199.1	29.4	21.0	-29.3	1.09	0.62	-11.87
1,300.0	4.62	23.46	1,298.8	36.9	23.9	-36.8	0.31	-0.02	3.86
1,400.0	4.28	30.42	1,398.5	43.8	27.4	-43.7	0.64	-0.34	6.96
1,500.0	3.96	36.20	1,498.3	49.8	31.4	-49.6	0.52	-0.32	5.78
1,600.0	3.89	35.04	1,598.0	55.4	35.4	-55.2	0.11	-0.07	-1.16
1,700.0	3.70	33.65	1,697.8	60.9	39.1	-60.6	0.21	-0.19	-1.39
1,800.0	3.36	34.86	1,797.6	65.9	42.6	-65.7	0.35	-0.34	1.21
1,900.0	3.18	37.49	1,897.4	70.5	45.9	-70.3	0.23	-0.18	2.63
2,000.0	2.95	37.95	1,997.3	74.8	49.2	-74.5	0.23	-0.23	0.46
2,100.0	2.76	35.62	2,097.2	78.8	52.2	-78.5	0.22	-0.19	-2.33
2,200.0	2.72	31.32	2,197.1	82.7	54.8	-82.4	0.21	-0.04	-4.30
2,300.0	2.56	29.68	2,297.0	86.7	57.1	-86.4	0.18	-0.16	-1.64
2,400.0	2.45	28.77	2,396.9	90.5	59.3	-90.2	0.12	-0.11	-0.91
2,500.0	2.22	26.06	2,496.8	94.1	61.2	-93.8	0.26	-0.23	-2.71
2,600.0	1.95	26.02	2,596.7	97.4	62.8	-97.0	0.27	-0.27	-0.04
2,700.0	1.73	27.80	2,696.7	100.3	64.2	-99.9	0.23	-0.22	1.78
2,800.0	1.55	29.67	2,796.6	102.8	65.6	-102.4	0.19	-0.18	1.87
2,900.0	1.53	31.02	2,896.6	105.1	66.9	-104.7	0.04	-0.02	1.35
3,000.0	1.46	19.09	2,996.6	107.5	68.0	-107.1	0.32	-0.07	-11.93
3,100.0	1.54	9.32	3,096.5	110.0	68.7	-109.6	0.27	0.08	-9.77
3,200.0	1.62	338.38	3,196.5	112.6	68.4	-112.2	0.85	0.08	-30.94
3,300.0	1.83	307.39	3,296.4	114.9	66.6	-114.5	0.94	0.21	-30.99
3,400.0	2.20	299.25	3,396.4	116.8	63.6	-116.4	0.47	0.37	-8.14
3,500.0	2.26	294.62	3,496.3	118.6	60.2	-118.2	0.19	0.06	-4.63
3,600.0	2.21	286.93	3,596.2	120.0	56.5	-119.6	0.30	-0.05	-7.69
3,700.0	2.15	284.37	3,696.2	121.0	52.9	-120.7	0.11	-0.06	-2.56
3,800.0	1.84	291.31	3,796.1	122.0	49.6	-121.7	0.39	-0.31	6.94
3,900.0	1.63	285.61	3,896.0	123.0	46.7	-122.7	0.27	-0.21	-5.70
4,000.0	1.26	277.58	3,996.0	123.5	44.2	-123.3	0.42	-0.37	-8.03
4,100.0	0.81	221.49	4,096.0	123.1	42.7	-122.9	1.05	-0.45	-56.09
4,200.0	0.59	178.95	4,196.0	122.1	42.2	-121.9	0.55	-0.22	-42.54
4,300.0	0.57	178.19	4,296.0	121.1	42.2	-120.8	0.02	-0.02	-0.76
4,400.0	0.65	233.38	4,396.0	120.3	41.8	-120.0	0.57	0.08	55.19
4,500.0	0.76	239.59	4,496.0	119.6	40.8	-119.3	0.13	0.11	6.21
4,600.0	0.75	254.04	4,596.0	119.1	39.6	-118.8	0.19	-0.01	14.45
4,700.0	0.79	284.97	4,696.0	119.1	38.3	-118.8	0.41	0.04	30.93
4,800.0	0.93	292.35	4,795.9	119.5	36.9	-119.3	0.18	0.14	7.38
4,900.0	1.12	293.06	4,895.9	120.2	35.2	-120.0	0.19	0.19	0.71
5,000.0	1.22	296.67	4,995.9	121.1	33.4	-120.9	0.12	0.10	3.61
5,100.0	1.30	291.62	5,095.9	122.0	31.4	-121.8	0.14	0.08	-5.05
5,200.0	1.50	295.35	5,195.9	123.0	29.1	-122.8	0.22	0.20	3.73

DDC
Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well True Grit 8 B3BO Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3614.0usft (Patterson #46)
Site:	Sec 8-22S-25E	MD Reference:	WELL @ 3614.0usft (Patterson #46)
Well:	True Grit 8 B3BO Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,300.0	1.26	296.09	5,295.8	124.0	27.0	-123.9	0.24	-0.24	0.74
5,400.0	1.03	245.89	5,395.8	124.1	25.1	-124.0	0.99	-0.23	-50.20
5,500.0	0.87	225.64	5,495.8	123.2	23.8	-123.1	0.37	-0.16	-20.25
5,600.0	0.95	217.07	5,595.8	122.0	22.7	-121.9	0.16	0.08	-8.57
5,700.0	1.10	228.91	5,695.8	120.8	21.5	-120.6	0.26	0.15	11.84
5,800.0	1.00	231.68	5,795.8	119.6	20.1	-119.5	0.11	-0.10	2.77
5,900.0	0.45	215.19	5,895.7	118.7	19.2	-118.6	0.58	-0.55	-16.49
6,000.0	0.44	202.26	5,995.7	118.0	18.8	-117.9	0.10	-0.01	-12.93
6,100.0	0.22	219.78	6,095.7	117.5	18.6	-117.4	0.24	-0.22	17.52
6,200.0	0.40	331.34	6,195.7	117.7	18.3	-117.6	0.52	0.18	111.56
6,300.0	1.28	23.80	6,295.7	119.0	18.5	-118.9	1.08	0.88	52.46
6,400.0	1.59	30.45	6,395.7	121.2	19.7	-121.1	0.35	0.31	6.65
6,500.0	1.01	11.48	6,495.7	123.3	20.6	-123.2	0.71	-0.58	-18.97
6,600.0	1.93	12.28	6,595.6	125.8	21.1	-125.7	0.92	0.92	0.80
6,700.0	1.71	33.20	6,695.6	128.7	22.3	-128.6	0.70	-0.22	20.92
6,800.0	0.99	308.54	6,795.6	130.5	22.4	-130.4	1.89	-0.72	-84.66
6,900.0	2.74	354.43	6,895.5	133.4	21.5	-133.3	2.17	1.75	45.89
Tie In @ 6960' MD / 6956' TVD									
6,960.0	2.07	353.20	6,955.5	135.9	21.3	-135.8	1.12	-1.12	-2.05
7,065.0	3.50	267.90	7,060.4	137.7	17.8	-137.6	3.73	1.36	-81.24
7,097.0	7.90	246.90	7,092.2	136.8	14.8	-136.7	14.99	13.75	-65.63
7,129.0	11.00	247.90	7,123.8	134.8	10.0	-134.7	9.70	9.69	3.13
7,161.0	13.20	254.40	7,155.1	132.6	3.6	-132.6	8.08	6.88	20.31
7,193.0	16.50	254.00	7,186.0	130.4	-4.3	-130.4	10.32	10.31	-1.25
7,225.0	19.20	244.60	7,216.4	126.9	-13.4	-127.0	12.31	8.44	-29.38
7,257.0	22.40	237.40	7,246.4	121.3	-23.3	-121.5	12.78	10.00	-22.50
7,289.0	25.50	231.20	7,275.6	113.7	-33.8	-113.9	12.47	9.69	-19.38
7,320.0	28.70	226.60	7,303.2	104.4	-44.4	-104.7	12.33	10.32	-14.84
7,352.0	31.70	221.90	7,330.9	92.9	-55.6	-93.2	11.93	9.38	-14.69
7,384.0	34.90	217.90	7,357.6	79.4	-66.8	-79.8	12.12	10.00	-12.50
Crossed 330' Hardline @ 7411' MD / 7380' TVD									
7,411.4	37.63	214.18	7,379.7	66.3	-76.4	-66.7	12.80	9.97	-13.58
7,416.0	38.10	213.60	7,383.3	64.0	-77.9	-64.4	12.80	10.20	-12.59
7,448.0	41.10	209.00	7,408.0	46.5	-88.5	-47.0	13.10	9.38	-14.38
7,480.0	44.10	204.70	7,431.5	27.2	-98.3	-27.8	13.06	9.38	-13.44
7,512.0	46.70	200.30	7,454.0	6.2	-107.0	-6.8	12.72	8.13	-13.75
7,544.0	49.90	196.40	7,475.3	-16.5	-114.5	15.9	13.52	10.00	-12.19
7,576.0	52.70	192.10	7,495.3	-40.7	-120.6	40.0	13.65	8.75	-13.44
7,607.0	56.10	189.50	7,513.4	-65.5	-125.3	64.7	12.91	10.97	-8.39
7,639.0	58.20	185.00	7,530.7	-92.1	-128.7	91.4	13.51	6.56	-14.06
7,671.0	60.70	180.10	7,547.0	-119.6	-129.9	118.9	15.32	7.81	-15.31
7,702.0	64.20	177.90	7,561.3	-147.1	-129.4	146.4	12.92	11.29	-7.10
7,734.0	67.20	177.50	7,574.5	-176.2	-128.2	175.5	9.44	9.38	-1.25
7,766.0	70.40	177.90	7,586.1	-206.1	-127.0	205.3	10.07	10.00	1.25

DDC Survey Report



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Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3614.0usft (Patterson #46)
Site:	Sec 8-22S-25E	MD Reference:	WELL @ 3614.0usft (Patterson #46)
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Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
7,798.0	73.60	178.20	7,596.0	-236.5	-126.0	235.7	10.04	10.00	0.94
7,829.0	76.10	178.30	7,604.1	-266.4	-125.1	265.6	8.07	8.06	0.32
7,861.0	79.60	177.70	7,610.8	-297.6	-124.0	296.9	11.09	10.94	-1.88
7,893.0	82.70	176.30	7,615.7	-329.2	-122.3	328.5	10.61	9.69	-4.38
7,925.0	85.80	177.00	7,618.9	-361.0	-120.5	360.3	9.93	9.69	2.19
7,938.0	86.50	177.40	7,619.8	-373.9	-119.8	373.2	6.20	5.38	3.08
8,019.0	87.10	177.00	7,624.3	-454.7	-115.9	454.0	0.89	0.74	-0.49
8,083.0	86.20	177.30	7,628.1	-518.5	-112.7	517.9	1.48	-1.41	0.47
8,146.0	88.60	177.80	7,630.9	-581.4	-110.0	580.8	3.89	3.81	0.79
8,209.0	89.70	177.80	7,631.9	-644.3	-107.6	643.7	1.75	1.75	0.00
8,273.0	89.70	178.00	7,632.2	-708.3	-105.3	707.7	0.31	0.00	0.31
8,336.0	90.10	177.50	7,632.3	-771.3	-102.8	770.6	1.02	0.63	-0.79
8,399.0	90.00	177.50	7,632.2	-834.2	-100.0	833.6	0.16	-0.16	0.00
8,462.0	90.70	177.70	7,631.9	-897.1	-97.4	896.6	1.16	1.11	0.32
8,526.0	90.50	178.40	7,631.2	-961.1	-95.2	960.5	1.14	-0.31	1.09
8,589.0	89.50	178.50	7,631.2	-1,024.1	-93.5	1,023.5	1.60	-1.59	0.16
8,652.0	90.20	178.70	7,631.4	-1,087.1	-92.0	1,086.5	1.16	1.11	0.32
8,715.0	90.50	179.10	7,631.0	-1,150.0	-90.8	1,149.5	0.79	0.48	0.63
8,779.0	89.80	179.20	7,630.8	-1,214.0	-89.8	1,213.5	1.10	-1.09	0.16
8,842.0	90.20	177.50	7,630.8	-1,277.0	-88.0	1,276.5	2.77	0.63	-2.70
8,905.0	90.40	176.80	7,630.5	-1,339.9	-84.9	1,339.4	1.16	0.32	-1.11
8,969.0	89.60	176.40	7,630.5	-1,403.8	-81.1	1,403.3	1.40	-1.25	-0.63
9,032.0	90.10	177.00	7,630.6	-1,466.7	-77.4	1,466.2	1.24	0.79	0.95
9,094.0	90.40	177.50	7,630.4	-1,528.6	-74.5	1,528.2	0.94	0.48	0.81
9,159.0	89.60	177.80	7,630.4	-1,593.6	-71.8	1,593.1	1.31	-1.23	0.46
9,222.0	90.40	177.70	7,630.4	-1,656.5	-69.3	1,656.1	1.28	1.27	-0.16
9,285.0	90.70	177.70	7,629.8	-1,719.5	-66.8	1,719.1	0.48	0.48	0.00
9,349.0	90.00	177.30	7,629.4	-1,783.4	-64.0	1,783.0	1.26	-1.09	-0.63
9,412.0	89.40	177.30	7,629.7	-1,846.3	-61.0	1,846.0	0.95	-0.95	0.00
9,475.0	90.30	176.80	7,629.9	-1,909.3	-57.8	1,908.9	1.63	1.43	-0.79
9,539.0	91.20	177.10	7,629.0	-1,973.2	-54.4	1,972.8	1.48	1.41	0.47
9,602.0	90.70	177.70	7,628.0	-2,036.1	-51.5	2,035.8	1.24	-0.79	0.95
9,666.0	90.00	176.60	7,627.6	-2,100.0	-48.4	2,099.7	2.04	-1.09	-1.72
9,729.0	89.70	177.00	7,627.8	-2,162.9	-44.8	2,162.6	0.79	-0.48	0.63
9,792.0	88.80	176.80	7,628.6	-2,225.8	-41.4	2,225.5	1.46	-1.43	-0.32
9,856.0	89.60	176.60	7,629.5	-2,289.7	-37.8	2,289.4	1.29	1.25	-0.31
9,919.0	90.30	176.80	7,629.5	-2,352.6	-34.1	2,352.4	1.16	1.11	0.32
9,983.0	89.30	176.60	7,629.8	-2,416.5	-30.4	2,416.3	1.59	-1.56	-0.31
10,046.0	89.60	177.10	7,630.4	-2,479.4	-27.0	2,479.2	0.93	0.48	0.79
10,109.0	90.70	178.70	7,630.2	-2,542.3	-24.7	2,542.2	3.08	1.75	2.54
10,172.0	90.00	178.90	7,629.8	-2,605.3	-23.4	2,605.1	1.16	-1.11	0.32
10,236.0	89.60	179.40	7,630.0	-2,669.3	-22.4	2,669.1	1.00	-0.63	0.78
10,299.0	90.20	179.20	7,630.1	-2,732.3	-21.6	2,732.1	1.00	0.95	-0.32

DDC Survey Report



Company:	Mewbourne Oil Co	Local Co-ordinate Reference:	Well True Grit 8 B3BO Fed Com #1H
Project:	Eddy County, New Mexico	TVD Reference:	WELL @ 3614.0usft (Patterson #46)
Site:	Sec 8-22S-25E	MD Reference:	WELL @ 3614.0usft (Patterson #46)
Well:	True Grit 8 B3BO Fed Com #1H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM 5000.1 Single User Db

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
10,363.0	91.00	178.70	7,629.5	-2,796.3	-20.5	2,796.1	1.47	1.25	-0.78	
10,426.0	90.30	178.20	7,628.8	-2,859.3	-18.8	2,859.1	1.37	-1.11	-0.79	
10,490.0	89.40	177.70	7,628.9	-2,923.2	-16.5	2,923.1	1.61	-1.41	-0.78	
10,553.0	90.00	177.70	7,629.3	-2,986.2	-13.9	2,986.0	0.95	0.95	0.00	
10,617.0	90.70	178.40	7,628.9	-3,050.1	-11.8	3,050.0	1.55	1.09	1.09	
10,680.0	90.10	178.40	7,628.4	-3,113.1	-10.0	3,113.0	0.95	-0.95	0.00	
10,743.0	89.40	178.40	7,628.7	-3,176.1	-8.2	3,176.0	1.11	-1.11	0.00	
10,807.0	90.60	178.50	7,628.7	-3,240.1	-6.5	3,240.0	1.88	1.88	0.16	
10,870.0	91.30	178.50	7,627.7	-3,303.0	-4.9	3,302.9	1.11	1.11	0.00	
10,934.0	90.40	177.70	7,626.7	-3,367.0	-2.7	3,366.9	1.88	-1.41	-1.25	
10,997.0	90.30	178.40	7,626.3	-3,429.9	-0.6	3,429.9	1.12	-0.16	1.11	
11,060.0	89.50	177.70	7,626.4	-3,492.9	1.5	3,492.9	1.69	-1.27	-1.11	
11,123.0	88.90	177.10	7,627.3	-3,555.8	4.4	3,555.8	1.35	-0.95	-0.95	
11,186.0	89.20	177.50	7,628.4	-3,618.8	7.4	3,618.7	0.79	0.48	0.63	
11,249.0	91.00	178.70	7,628.2	-3,681.7	9.5	3,681.7	3.43	2.86	1.90	
11,312.0	90.70	179.60	7,627.3	-3,744.7	10.4	3,744.7	1.51	-0.48	1.43	
11,375.0	90.30	179.90	7,626.8	-3,807.7	10.7	3,807.7	0.79	-0.63	0.48	
11,439.0	89.50	179.80	7,626.9	-3,871.7	10.8	3,871.7	1.26	-1.25	-0.16	
11,502.0	89.30	179.40	7,627.5	-3,934.7	11.3	3,934.7	0.71	-0.32	-0.63	
11,566.0	88.60	179.60	7,628.7	-3,998.7	11.8	3,998.7	1.14	-1.09	0.31	
11,628.0	89.50	179.80	7,629.7	-4,060.7	12.2	4,060.7	1.49	1.45	0.32	
11,691.0	90.10	179.80	7,629.9	-4,123.7	12.4	4,123.7	0.95	0.95	0.00	
11,755.0	89.30	179.20	7,630.3	-4,187.7	12.9	4,187.7	1.56	-1.25	-0.94	
11,817.0	88.80	177.80	7,631.3	-4,249.6	14.6	4,249.6	2.40	-0.81	-2.26	
11,881.0	88.40	177.30	7,632.9	-4,313.6	17.3	4,313.6	1.00	-0.63	-0.78	
11,944.0	89.30	177.70	7,634.1	-4,376.5	20.0	4,376.5	1.56	1.43	0.63	
11,989.0	90.10	177.50	7,634.4	-4,421.4	21.9	4,421.5	1.83	1.78	-0.44	
TD @ 12043' MD / 7634' TVD										
12,043.0	90.10	177.50	7,634.3	-4,475.4	24.3	4,475.5	0.00	0.00	0.00	

Design Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		
		+N/-S (usft)	+E/-W (usft)	Comment
6,960.0	6,955.5	135.9	21.3	Tie In @ 6960' MD / 6956' TVD
7,411.4	7,379.7	66.3	-76.4	Crossed 330' Hardline @ 7411' MD / 7380' TVD
12,043.0	7,634.3	-4,475.4	24.3	TD @ 12043' MD / 7634' TVD

Checked By: _____	Approved By: _____	Date: _____
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